

SEQUENCE LISTING

<110> BioteCon Diagnostics GmbH

<120> Nucleic acid molecules for the detection of bacteria
and phylogenetic units of bacteria

<130> 216180

<140> US 10/88,966

<141> 2002-03-22

<150> PCT/EP00/08813

<151> 2000-09-08

<150> DE 19945916.9

<151> 1999-09-24

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<170> PatentIn Ver. 2.1

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<213> *Vibrio harbeyi*

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 <211> 33
 <212> DNA
 <213> *Pasteurella pneumotropica*

<400> 83
 gctgacgaat actaatcgat cgaggactta acc 33

<210> 84
 <211> 30
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Stenotrophomonas*

<400> 84
 gcccgtaggg cttgtcccta taaccttggt 30

<210> 85
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from genera of enterobacteria

<400> 85
caacaccgaa ggtgttttgg aggaatc 27

<210> 86
<211> 27
<212> DNA
<213> Acinetobacter calcoaceticus

<400> 86
caacacccaa gcagttgtat ataaagc 27

<210> 87
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus Aeromonas

<400> 87
caacacccaa gaagtgttct aaggctt 27

<210> 88
<211> 27
<212> DNA
<213> Haemophilus influenzae

<400> 88
caacgctcaa gtgttttttg gagctaa 27

<210> 89
<211> 27
<212> DNA
<213> Moraxella catarrhalis

<400> 89
caacacccaa gtggtttacc actgact 27

<210> 90
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence:
derived from species of the genus

Stenotrophomonas

<400> 90
taaccttggt agtccaaggt cgagtac 27

<210> 91
<211> 27
<212> DNA
<213> Vibrio alginolyticus

<400> 91
caacacccaa ggggttttga tggactc 27

<210> 92
<211> 27
<212> DNA
<213> Vibrio fisheri

<400> 92
caacacccaa gtggtttga tcaagca 27

<210> 93
<211> 27
<212> DNA
<213> Vibrio harveyi

<400> 93
caacacccaa ggggttttga tggactc 27

<210> 94
<211> 27
<212> DNA
<213> Vibrio paramaemolyticus

<400> 94
caacacccaa ggggttttga tggactc 27

<210> 95
<211> 36
<212> DNA
<213> Vibrio proteolyticus

<400> 95
caacacccaa ggggttttga tggactcaat gaaaga 36

<210> 96
<211> 118
<212> DNA
<213> Budvicia aquatica

<400> 96
caacatccga ggtgttttaa ggaaagttga agagacgaaa gaataagtag aattccagct 60
tgaaccgaga ttgagttgat ggttgtgtga atgacacgac ggtcaataga cagaatat 118

216180.ST25

<210> 97
 <211> 111
 <212> DNA
 <213> *Buttiauxella agrestis*

<400> 97
 caacaccgaa ggtgttttgg ttgagagact aagatattga attttcagct tgaaccgaga 60
 ttttaagtcg atggttgtgt gaacagcatg acggttgatg aaacagaata t 111

<210> 98
 <211> 193
 <212> DNA
 <213> *Enterobacter agglomerans*

<400> 98
 caacgccgaa gatgttttgg cggattgaga agattttcag cattgattac agattttcgg 60
 gaacgaaaga ttttacgctg aggcaaggcg gcaaataag taaaggaagg agcatacatg 120
 agtatgtgac tgacttttgc aatgcagcca acgcagccac agtgaaaaag attcgtttct 180
 ggcaacagaa ttt 193

<210> 99
 <211> 123
 <212> DNA
 <213> *Erwinia carotovora*

<400> 99
 caacaccgaa ggtgttttga gagtgactca aagagatggt gataatcagc ttgttttagg 60
 attggttctg atggttatgc gagagcgaaa gcgaagcatg acggttgga tgaaacagaa 120
 ttt 123

<210> 100
 <211> 101
 <212> DNA
 <213> *Erwinia chrysanthemi*

<400> 100
 caacaccgaa ggtgtttttag agagattggt ttgaattttc agtgaagtgc cgagattggt 60
 tctgatggct acggagtagc ggtcgggatg aaacaaaatt t 101

<210> 101
 <211> 92
 <212> DNA
 <213> *Escherichia coli*

<400> 101
 caacgccgaa gctgttttgg cggatgagag aagattttca gcctgataca gattaaatca 60
 gaacgcagaa gcggtctgat aaaacagaat tt 92

<210> 102
 <211> 104
 <212> DNA
 <213> *Escherichia hermannii*

<400> 102
 caacgccaga gtggttttgg tgttgcggtg tgagagacga ttttcagctt gaccggatag 60
 acatctgtgg cggcgcgcga gcacgcagca ggtgaacaga attt 104

216180.ST25

<210> 103
 <211> 92
 <212> DNA
 <213> *Escherichia vulneris*

<400> 103
 caacgccgaa gatgttttgg cggatttgaa agacgatttt.cagctgatac agattaagtc 60
 tgccgcctga cggcgtcaga cagacagaat tt 92

<210> 104
 <211> 119
 <212> DNA
 <213> *Hafnia alvei*

<400> 104
 caacaccgaa ggtgtttttaa gacgcagaga cgcgaaaaca caaagagtaa gcttggtgaa 60
 cagattgggtt tgtatggcta gctgtagaaa tacagaaagc ggtacaaata acagaatat 119

<210> 105
 <211> 195
 <212> DNA
 <213> *Klebsiella oxytoca*

<400> 105
 cgccgaagat gttttggcga tttgagaaga caacaatttc agcattgatt acagattttc 60
 gggaaccgaaa gatttttacgc tgaggcaagg cggcaaatga aggaaaggaa ggagcatact 120
 gaagtatgtg actgacttta cgaatgcagc caacgcagca tcggtgtaaa agattcgttt 180
 ctgacaacag aattt 195

<210> 106
 <211> 90
 <212> DNA
 <213> *Kluyvera cryoescens*

<400> 106
 cgccaaagat gttttggtga aaagagacat caataatcag cttgatacag ataaattaac 60
 tggccgaaag gcgggttaat aacagaattt 90

<210> 107
 <211> 105
 <212> DNA
 <213> *Morganella morganii*

<400> 107
 caccgaaggt gttttgagtt gagagacgat taaagagatt tttcagcaca gtgaagaggc 60
 agaagtcatt cactgtgaaa gcttattttg gattgaaatg aattt 105

<210> 108
 <211> 192
 <212> DNA
 <213> *Pantoea dispersa*

<220>
 <221> misc_feature

<222> (61)..(61)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<220>
 <221> misc_feature
 <222> (29)..(29)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<220>
 <221> misc_feature
 <222> (179)..(179)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 108
 cgccagaggc gttttggtct gagagaccna aagaattttc agcattgttc accggattac 60
 ntccagtgga ttttgtgctg tgacaaggcg gcacgcgaga cgacgggaag gagcatacac 120
 gagtatgtga ctgagcggcg cgagcggggc aacgcagtca gagcgcaaaa gacgcggtnt 180
 aaaacaaaat tt 192

<210> 109
 <211> 190
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived from species of the genus *Pantoea*

<400> 109
 cgccgaagat gttttggcgg aatgagaaga ttttcagcat tgattacaga ttttcgggaa 60
 cgaaagattt tacgctgagg caaggcggca aatgaagtaa aggaaggagc atacatgagt 120
 atgtgactga ctttkcgat gcagccaacg cagccacagt gaaaaagatt cgtttctggc 180
 aacagaattt 190

<210> 110
 <211> 111
 <212> DNA
 <213> *Proteus mirabilis*

<220>
 <221> misc_feature
 <222> (65)..(65)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 110
 caacaccgaa agtgttttgt cagagagacg aaacgatgaa gtcagcttgt tcaanattga 60
 attactggcg acttaccgaa aggaaagaag cgagtgatta aaaccgaatt t 111

<210> 111
 <211> 139
 <212> DNA
 <213> *Proteus rettgeri*

<400> 111
 caacaccgaa ggtgttttag agagatagag ttgttttcaa gaaagagtga gaagccaaaa 60
 ggtgaaggac acgcagcttg tttgagattg aggttctggt ttagtgaaga aaaaactaaa 120
 cggaacaaa acagaattt 139

<210> 112
 <211> 137
 <212> DNA
 <213> *Providencia stuartii*

<400> 112
 caacaccgaa ggtgttttag agagacgaag agacgaattg ttgaagcgca cgagatagag 60
 tggtagcga aaatcagctt gttcaagatt gcagttctgg tttgcggtgt agacgcgaac 120
 gggaacgaac cgaattt 137

<210> 113
 <211> 135
 <212> DNA
 <213> *Rahnella aquatilis*

<400> 113
 caacaccgaa ggtgttttag atttgagaga cagactcgag agagtagatt ttcagcgaat 60
 tggtccggtt ttggttcgta tggcggcgtg tgatgagaaa ttatgacacg acgcggtatg 120
 aatgaaacag aattt 135

<210> 114
 <211> 100
 <212> DNA
 <213> *Serratia ficaria*

<400> 114
 caacaccgaa ggtgttttag agagacgaat aattttcagc gaagttctta gattggttct 60
 ggtggttacg cgagtaacgg ccaagaatga aacagaattt 100

<210> 115
 <211> 106
 <212> DNA
 <213> *Serratia fonticola*

<400> 115
 caacacccaa ggtgttttga agagattgaa gtgattttc agcgaagtgc cgagattggt 60
 ttcaatggcg acacgagagt gaagcgggtg aaatgaaaca gaattt 106

<210> 116
 <211> 97
 <212> DNA
 <213> *Serratia marcescens*

<400> 116
 caacaccgaa ggtgttttga gagagatttt cagcgaagtt ccgagattgg ttctgatggc 60
 gacacgaaag tgaagcgggt ggaatgaaac agaattt 97

<210> 117
 <211> 99

216180.ST25

<212> DNA

<213> *Serratia plymuthica*

<400> 117

caacaccgaa ggtgttttag agagattaca gtagattttc agcgacgttc cgagattggt 60
ttcaatggcc caaaaggcgg ttggaatgaa acagaattt 99

<210> 118

<211> 100

<212> DNA

<213> *Serratia proteamaculans*

<220>

<221> misc_feature

<222> (95)..(95)

<223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 118

caacaccaaa ggtgttttag agagattgta gagattttca gcgagttccg agattggttt 60
caatggctgc gagagtagcg gttggaatga aacanaattt 100

<210> 119

<211> 101

<212> DNA

<213> *Serratia rubidea*

<400> 119

caacaccgaa ggtgttttag agagattggt ttgaattttc agtgaagttc cgagattggt 60
tctgatggct acggagtagc ggtcgggatg aaacagaatt t 101

<210> 120

<211> 116

<212> DNA

<213> *Yersinia enterocolytica*

<400> 120

caacaccaaa ggtgttttgt atttgagaga tagatattga ttttcagcga atgttccgag 60
attgggctgg ctggctgtgt gaaagattgc atagcgggtt agtttagaca gaattt 116

<210> 121

<211> 104

<212> DNA

<213> *Yersinia pseudotuberculosis*

<400> 121

caacaccgaa gtcttgaatt gagagagatt ttcagcgtcg ttccgagatt ggattgactg 60
gcgtcacaag cgctgtttgt gtgcgggtta attaaaacag attt 104

<210> 122

<211> 179

<212> DNA

<213> *Acinetobacter calcoaceticus*

<400> 122

caacacccaa gcagttgtat ataaagcatc aatcgattca ttaatatgca aagcaacttg 60

216180.ST25

atttagttat acgcttagct aaaatgaaca aaatatagta agactcaatc agcccatctg 120
taaagatttg gaaaacgcat cggcaaccaa taagaccaat gcaagtatcc ataccagtt 179

<210> 123
<211> 118
<212> DNA
<213> *Aeromonas enteropelogenes*

<220>
<221> misc_feature
<222> (20)..(20)
<223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 123
caacacccaa gaagtgtttn tgggtgcttgt agcgaatgaa cgaactacgc attcagtgat 60
aacgacaagc cacgagcaac atcgttattc acgtcagctt tccaagattg aagatttt 118

<210> 124
<211> 81
<212> DNA
<213> *Aeromonas hydrophila*

<400> 124
caacacccaa gaagtgttct aaggcttgta gcagataccg agaacgaaca acaaaatcag 60
ctttctcaga ttgaagaatt t 81

<210> 125
<211> 96
<212> DNA
<213> *Cedecea davisae*

<400> 125
caacacccaaa ggtgttttgc gagacgcaat tttaattttc agcgaagtgc aggattagac 60
tgatggtcac aaagtgcgg tcagtaaaca gaattt 96

<210> 126
<211> 217
<212> DNA
<213> *Haemophilus influenzae*

<400> 126
caacgctcaa gtgttttttg gagctaagtg aagtaagaga tgaaaagcga agcaaataaa 60
agcagagcga aagagaagta aaagactaaa caaagaaaag taaatataga agacttaata 120
gaaagaaaat cggattcagc ttgtgaccaa taagaacgag tgaaaggtag aggaaagact 180
gagtaacgag agataaaaga gacgagagat aaaagag 217

<210> 127
<211> 90
<212> DNA
<213> *Moraxella catarrhalis*

<400> 127
caacacccaa gtggtttacc actgactgtg ttgattggta atatataaga tgaaccttaa 60
tcttgatttg gtaataaaca gactcatata 90

<210> 128
 <211> 134
 <212> DNA
 <213> *Pasteurella pneumotropica*

<400> 128
 cgaggactta accaaatttg tttatcgtaa caatgctgtt tatccagttt tgaaagaata 60
 aatttttatt aaataactct tgcattattc tacagagttg ttataataaa acatgtcctt 120
 caaaagtatt caag 134

<210> 129
 <211> 141
 <212> DNA
 <213> *Stenotrophomonas multophila*

<220>
 <221> misc_feature
 <222> (55)..(55)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<220>
 <221> misc_feature
 <222> (112)..(112)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 129
 taaccttggt agtccaaggt cgagtacaac tgctcgatac aaaagctaca acccnactta 60
 cttcttccag attcatggcc acgctgaaca aagcgtaggg tgggcggctg tnccgcccac 120
 gcgtaactca agcgtagcca g 141

<210> 130
 <211> 100
 <212> DNA
 <213> *Vibrio alginolyticus*

<400> 130
 caacacccaa ggggttttga tggactcaat gaaagaacat tgaatgtgta agaacgagaa 60
 ttaaaaaaca gctttccaga ttaaagaatt tgcttggcga 100

<210> 131
 <211> 122
 <212> DNA
 <213> *Vibrio fisheri*

<400> 131
 caacacccaa gtggttttga tcaagcatta tatcgatatc accgttatcc ttgattcagt 60
 taggataagt gatacttaag tcattaagta aaacaaacac agactcatat ctaaccccct 120
 tt 122

<210> 132
 <211> 122
 <212> DNA
 <213> *Vibrio harveyi*

216180.ST25

<400> 132
caacacccaa gtgggtttgta tcaagcatta tatcgatatc accgttatcc ttgattcagt 60
taggataagt gatacttaag tcattaagta aaacaaacac agactcatat ctaaccccct 120
tt 122

<210> 133
<211> 89
<212> DNA
<213> *Vibrio paramaemolyticus*

<400> 133
caacacccaa ggggttttga tggactcgaa gcaagaacag aattgaatgt gtagagaaca 60
caaaaacagc tttccgaatt aaagaattt 89

<210> 134
<211> 169
<212> DNA
<213> *Vibrio proteolyticus*

<400> 134
caacacccaa ggggttttga tggactcaat gaaagaacat tgaatgtgta agaacgagaa 60
ttaaaaaaca gctttccgaa ttttaggaatt gaatttatta acgacatcca tgtcgttaac 120
ccttcggggc gcactgaagt gcgttaaatt ttgttccaga caaaatttt 169

<210> 135
<211> 33
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from genera of enterobacteria

<400> 135
gcctggcggc actagcgcg tggtcccacc tga 33

<210> 136
<211> 33
<212> DNA
<213> *Buttiauxella agrestis*

<400> 136
gcctggcggc agtagcgcg tggtcccacc tga 33

<210> 137
<211> 33
<212> DNA
<213> *Enterobacter agglomerans*

<400> 137
gcctggcggc tttagcgcg tggtcccacc tga 33

<210> 138
<211> 33
<212> DNA

<213> *Erwinia carotovora*

<400> 138

gcctggcggc gatagcgcg tggtcccacc tga

33

<210> 139

<211> 33

<212> DNA

<213> *Erwinia chrysanthemi*

<400> 139

gcctggcggc ggtagcgcg tggtcccacc tga

33

<210> 140

<211> 33

<212> DNA

<213> *Escherichia coli*

<400> 140

gcctggcggc agtagcgcg tggtcccacc tga

33

<210> 141

<211> 33

<212> DNA

<213> *Escherichia hermannii*

<400> 141

gcctggcggc aagagcgcg tggtcccacc tga

33

<210> 142

<211> 33

<212> DNA

<213> *Escherichia vulneris*

<400> 142

gcctggcggc actagcgcg tggtcccacc tga

33

<210> 143

<211> 33

<212> DNA

<213> *Hafnia alvei*

<400> 143

gcctggcggc gatagcgcg tggtcccacc tga

33

<210> 144

<211> 32

<212> DNA

<213> *Klebsiella oxytoca*

<400> 144

gcctggcggc actagcgcg tggtccacct ga

32

<210> 145

<211> 33
 <212> DNA
 <213> *Kluyvera cryoescens*

<400> 145
 gcctggcggc aacagcgcgg tgggtcccacc tga 33

<210> 146
 <211> 33
 <212> DNA
 <213> *Morganella morganii*

<400> 146
 gcctggcggc cgtagcgcgg tgggtcccacc tga 33

<210> 147
 <211> 31
 <212> DNA
 <213> *Pantoea dispersa*

<400> 147
 gcctggcggc aacagccgcg gtgggtcccac c 31

<210> 148
 <211> 33
 <212> DNA
 <213> *Proteus mirabilis*

<400> 148
 gcttgggtggc catagcgcgg tgggtcccacc tga 33

<210> 149
 <211> 33
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genera *Proteus*, *Providencia*

<400> 149
 gtctggcggc aatagcacgg tgggtcccacc tga 33

<210> 150
 <211> 33
 <212> DNA
 <213> *Rahnella aquatilis*

<400> 150
 gcctggcggc agtagcgcgg tgggtcccacc tga 33

<210> 151
 <211> 33
 <212> DNA
 <213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived
from species of the genus *Serratia*

<400> 151

gcctggcggc aatagcgcgg tggccccacc tga

33

<210> 152

<211> 33

<212> DNA

<213> *Yersinia enterocolytica*

<400> 152

gcctggcggc catagcgcgg tggacccacc tga

33

<210> 153

<211> 33

<212> DNA

<213> *Yersinia pseudotuberculosis*

<400> 153

gtctggcggc catagcgcgg tggtcycacc tga

33

<210> 154

<211> 51

<212> DNA

<213> *Acinetobacter calcoaceticus*

<400> 154

aagtatccat accagttgtg ctggcgacca tagcaagagt gaaccacctg a

51

<210> 155

<211> 33

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived
from species of the genus *Aeromonas*

<400> 155

gcctggcggc catagcgccg tggaaccacc tga

33

<210> 156

<211> 51

<212> DNA

<213> *Haemophilus influenzae*

<400> 156

aaaagacgag ttatcaaaga attatcctgg cggcgatagt gcggtggacc c

51

<210> 157

<211> 54

<212> DNA

216180.ST25

<213> *Moraxella catarrhalis*

<400> 157
acagcgttgt taatcctttt acgctgacga caatagcaag atggaaccac ctga 54

<210> 158

<211> 43

<212> DNA

<213> *Pasteurella pneumotropica*

<400> 158
tctagtgatg atggcgaaga ggtcacaccc gttcccatat cga 43

<210> 159

<211> 54

<212> DNA

<213> *Stenotrophomonas multophila*

<400> 159
acaagtcaaa gcctgatgac catagcaagt cgggccacc cttcccatc ccga 54

<210> 160

<211> 33

<212> DNA

<213> *Vibrio alginolyticus*

<400> 160
gcttggcgac catagcggtt tggaccaccc tga 33

<210> 161

<211> 51

<212> DNA

<213> *Vibrio fisheri*

<400> 161
ctcatatcta accccctttg ctgacgaaa tagcacgatg gcaccacctg a 51

<210> 162

<211> 45

<212> DNA

<213> *Vibrio harveyi*

<400> 162
gcttggcgac catagcgatt tggaccaccc tgacttccat tccga 45

<210> 163

<211> 33

<212> DNA

<213> *Vibrio proteolyticus*

<400> 163
gcttggcgac catagcggtt tggaccaccc tga 33

<210> 164

<211> 37
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genera Rahnella, Serratia,
 Yersinia

 <400> 164
 agattttcag cgaagttccg agattggttt caatggc 37

 <210> 165
 <211> 21
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genera Enterobacter, Escherichia,
 Klebsiella, Pantoea

 <220>
 <221> misc_feature
 <222> (14)..(16)
 <223> I = Inosine (I)

 <400> 165
 ggaaggagca tacnnnagtat 21

 <210> 166
 <211> 32
 <212> DNA
 <213> Budvicia aquatica

 <400> 166
 aggtccctga aggaacgttt gagactaaga cg 32

 <210> 167
 <211> 32
 <212> DNA
 <213> Buttiauxella agrestis

 <400> 167
 agggtcctga aggaacgttg aagactacga cg 32

 <210> 168
 <211> 32
 <212> DNA
 <213> Enterobacter agglomerans

 <400> 168
 aggacactaa aggaacgttg aagacgacga cg 32

 <210> 169
 <211> 32

<212> DNA
 <213> *Erwinia carotovora*

 <400> 169
 atgccctga agggccgttg aagactacga cg 32

 <210> 170
 <211> 32
 <212> DNA
 <213> *Erwinia chrysanthemi*

 <400> 170
 agggccctga agggacgttt aagacgaaga cg 32

 <210> 171
 <211> 29
 <212> DNA
 <213> *Escherichia coli*

 <400> 171
 aggttcctga aggaacgttg aagacgacg 29

 <210> 172
 <211> 32
 <212> DNA
 <213> *Escherichia hermannii*

 <400> 172
 agagtcctga aggaacgttg aagacgacga cg 32

 <210> 173
 <211> 32
 <212> DNA
 <213> *Escherichia vulneris*

 <400> 173
 agtctcctga aggaacgttg aagacgacga cg 32

 <210> 174
 <211> 32
 <212> DNA
 <213> *Hafnia alvei*

 <400> 174
 agtctcctaa aggaacgttt aagactaaga cg 32

 <210> 175
 <211> 32
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genera *Klebsiella*, *Kuyvera*

216180.ST25

<400> 175
agggtcctga aggaacgttg aagacgacga cg 32

<210> 176
<211> 32
<212> DNA
<213> *Morganella morganii*

<400> 176
agggtcctga aggaacgttt gagactaaga cg 32

<210> 177
<211> 32
<212> DNA
<213> *Pantoea dispersa*

<400> 177
agggtcctga agggacgctg aagacgacga cg 32

<210> 178
<211> 32
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus *Pantoea*

<400> 178
aggacactaa aggaacgtta aagacgatga cg 32

<210> 179
<211> 32
<212> DNA
<213> *Proteus mirabilis*

<400> 179
agtgacctaa aggaacgttt aagactaaga cg 32

<210> 180
<211> 32
<212> DNA
<213> *Proteus rettgeri*

<400> 180
agggtcctaa aggaacgttt aagactaaga cg 32

<210> 181
<211> 32
<212> DNA
<213> *Providencia stuartii*

<400> 181
agggtcctaa aggaacgttt aagacgaaga cg 32

<210> 182
 <211> 32
 <212> DNA
 <213> *Rahnella aquatilis*

<400> 182
 agccacctga agggacgttt aagactaaga cg 32

<210> 183
 <211> 32
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Serratia*

<400> 183
 agccccctga aggaacgttt aagactaaga cg 32

<210> 184
 <211> 32
 <212> DNA
 <213> *Yersinia enterocolitica*

<400> 184
 agccccctga aggaacgtta aagactatga cg 32

<210> 185
 <211> 32
 <212> DNA
 <213> *Yersinia pseudotuberculosis*

<400> 185
 agccccctga gggaacgtta aagactatga cg 32

<210> 186
 <211> 32
 <212> DNA
 <213> *Cedecea davisae*

<400> 186
 agaccctga agggacgttg aagactacga cg 32

<210> 187
 <211> 24
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genera *Buttiauxella*, *Escherichia*,
Klebsiella, *Kluyvera*, *Pantoea*

<400> 187

agatgagttc tccctgaccc ttta 24

<210> 188

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived
from species of the genera *Enterobacter*, *Pantoea*

<400> 188

agatgagttc tcccttggtcc ttta 24

<210> 189

<211> 24

<212> DNA

<213> *Erwinia carotovora*

<400> 189

agatgagtct tccctgggca ccag 24

<210> 190

<211> 24

<212> DNA

<213> *Erwinia chrysanthemi*

<400> 190

agatgagtct tccctgggcc cttg 24

<210> 191

<211> 24

<212> DNA

<213> *Escherichia hermannii*

<400> 191

agatgagttc tccctgactc cttg 24

<210> 192

<211> 24

<212> DNA

<213> *Escherichia vulneris*

<400> 192

agatgagttc tccctgagac ttta 24

<210> 193

<211> 24

<212> DNA

<213> *Hafnia alvei*

<400> 193

agatgagtct tccctgagac cttg 24

<210> 194
 <211> 24
 <212> DNA
 <213> *Morganella morganii*

 <400> 194
 agatgagtct tccctgaccc ttta 24

<210> 195
 <211> 24
 <212> DNA
 <213> *Proteus mirabilis*

 <400> 195
 agatgagtct tccctgtcac ttta 24

<210> 196
 <211> 24
 <212> DNA
 <213> *Proteus rettgeri*

 <400> 196
 agatgagtct tccctgaccc ttta 24

<210> 197
 <211> 24
 <212> DNA
 <213> *Providencia stuartii*

 <400> 197
 agatgagtct tccctgactc ttta 24

<210> 198
 <211> 24
 <212> DNA
 <213> *Rahnella aquatilis*

 <400> 198
 agatgagtct tccctgtggc ttta 24

<210> 199
 <211> 24
 <212> DNA
 <213> *Yersinia enterocolytica*

 <400> 199
 agatgagtct tccctggggc ttta 24

<210> 200
 <211> 24
 <212> DNA
 <213> *Yersinia pseudotuberculosis*

 <400> 200
 agatgagtct tccctggggc ttaa 24

<210> 201
 <211> 24
 <212> DNA
 <213> *Cedecea davisae*

<400> 201
 agatgaattc tccctgggtc cttg

24

<210> 202
 <211> 199
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Citrobacter*

<400> 202
 caacgccgaa gatgttttgg cggaattgag aagattttca gcattgattc agagtccgaa 60
 ggatttttgcg ctgagacaag gcggcawccc caccacggaa ggagcataca aaagtatgtg 120
 actgaggttc gcaagcgcag ccaacgcagt atcagcacia aagacacagg acagagcaca 180
 aagaatttct ggcggccgt 199

<210> 203
 <211> 199
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Citrobacter*

<400> 203
 caacgccgaa gatgttttgg cggattgaga agatttttcag tattgattac agatttttgcg 60
 aaaacgaaag attttacgct gaggcaaggc ggcaagtga ggcacggaag kggcatacaa 120
 aagtatgtga ctgaggttcg caggcgcagc caacgcagca tcagtggaaa agattcgttt 180
 taagagcaca aagaatttc 199

<210> 204
 <211> 199
 <212> DNA
 <213> Artificial sequence

<220>
 <223> artificial sequence: derived
 from species of the genus *Salmonella*

<400> 204
 caacscsaa gatgttttgg csgatsagag argattttca gcactgattc ckgatttttcg 60
 vgaacgaaag attttacgct gaggcaaggc rgcaavcgaa ggaaaggaag gagcactactg 120
 aagtatgtga ctgactttac gagcgcagcc aacgctagca tcsgtgtaaa agattcgttt 180
 ctggcaacag aatttcctg 199

<210> 205
 <211> 201

<212> DNA

<213> derived from species of the genus *Salmonella*

<220>

<221> misc_feature

<222> (28)..(28)

<223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 205

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caacgccgaa gctgttttgg cggatranaa sacgaacaat tttcagcact gattcagagt 60
tgagtacgca ataatttgcg cagcagcaag gcggaagcg aaggaaagga aggagcatac 120
agaagtatgt gactgacttt acgagcgag ccaacgccgc tgatgcgata aagaattgcg 180
tacagagcac aaaagaatat t                                     201
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<210> 206

<211> 193

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived from species of the genus *Salmonella*

<400> 206

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caacgccgaa gatgttttgg csgttgagaa gacgattttc agcagtgatt ccgrgttgag 60
trcgcmrtaa tttkcgcmgc wgcarggcgg cargcgaagg arrggaggga gcatccwgaa 120
gtatktgact gagttttcgr gcgcwggcam cgccgctgat gcgataaaga attgcgtach 180
gmgcacamag aat                                     193
```

<210> 207

<211> 199

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived from species of the genus *Salmonella*

<400> 207

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caacgccgaa gatgttttgg cggattgaga gacgattttc agcactgatt ccggattttc 60
gggaacgaaa gatttttacgc tgaggcaagg cggcaaatgr aggaaaggaa ggagcatact 120
gaagtatgtg actgactttt cgaatgcagc cgacgcagca tcggtgtaaa agattcgttt 180
ccggcaacag aattgtcct                                     199
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<210> 208

<211> 189

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived from species of the genus *Salmonella*

<400> 208

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caacgccgaa gatgttttgg cggatgagag acgattttca gactgattc agagttgagt 60
acgcaataat ttgcgcagca gcaaggcggc aagcgaagga aaggaaggag catacagaag 120
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tatgtgactg agttttacgag cgcaggcaac gccgctgatg cgataaagaa ttgcgtactg 180
agcataaaa 189

<210> 209
<211> 196
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus Salmonella

<400> 209
caacgccgaa gatgttttgg cggattgaga agacaacaat tttcagcyca gattcagagt 60
ccgaaggatt ttacgctgag acaaggcggc aaacgcagcs mcsgaaggas cmycacagaa 120
gtatgtgact gacgctcgca agagcagcca acgccgtatc agtgtaaaag acacaggacg 180
grgcacaaag aaattt 196

<210> 210
<211> 77
<212> DNA
<213> Artificial sequence

<220>
<223> artificial sequence: derived
from species of the genus Salmonella

<400> 210
gagagacgat tttcagcact gattccggat tttcggaac gaaagataaa agattcgttt 60
ccgcaacag aatttcc 77

<210> 211
<211> 24
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species and genera of eubacteria

<400> 211
ggtacgcgag ctgggttttag aacg 24

<210> 212
<211> 19
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species and genera of eubacteria

<400> 212
gbgagagtag gdmayygcc 19

<210> 213

<211> 54
 <212> DNA
 <213> *Pseudomonas stutzeri*

 <400> 213
 ccggagtgga cgaacctctg gtgttccggt tgtcacgcca gtggcattgc cggg 54

 <210> 214
 <211> 53
 <212> DNA
 <213> *Thiobacillus ferrooxidans*

 <400> 214
 ccggagtgga cgtactctgg tgttccggtt gttctgcca gggcattgcc ggg 53

 <210> 215
 <211> 54
 <212> DNA
 <213> *Agrobacterium vitis*

 <400> 215
 ccgggatgga catatctctg gtggacctgt tgtcgtgcca acggcatagc aggg 54

 <210> 216
 <211> 54
 <212> DNA
 <213> *Adalia bipunctata*

 <400> 216
 ccgaggtgga cgtacctctg gtggaccagt tgtcatgcca atggcacagc tggg 54

 <210> 217
 <211> 54
 <212> DNA
 <213> *Amycolatopsis orientalis*

 <400> 217
 ccgggacgga cgaacctctg gtgtgccagt tgtcctgcca agggcatggc tggg 54

 <210> 218
 <211> 54
 <212> DNA
 <213> *Brucella ovis*

 <220>
 <221> misc_feature
 <222> (18)..(18)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

 <400> 218
 ccgggatgga cgtatctntg gtggacctgt tgtggcgcca gccgcatagc aggg 54

 <210> 219
 <211> 54

<212> DNA
 <213> *Bradyrhizobium japonicum*

 <400> 219
 ccggggtgaa cgtacctctg gtggagctgt tgtcgcgcca gcggcagtgc agca 54

 <210> 220
 <211> 54
 <212> DNA
 <213> *Pseudomonas paucimobilis*

 <400> 220
 ccgggatgga cgcaccgctg gtgtaccagt tgttctgcca agggcatcgc tggg 54

 <210> 221
 <211> 54
 <212> DNA
 <213> *Rhodobacter sphaeroides*

 <400> 221
 ccgggatgga cgcaccgctg gtgtaccagt tgttctgcca agggcatcgc tggg 54

 <210> 222
 <211> 57
 <212> DNA
 <213> *Rickettsia prowazekii*

 <400> 222
 ccgaggtgga cgtaccctctg gtggaccagt tgtcgtgcca acggcaagct gggtagc 57

 <210> 223
 <211> 54
 <212> DNA
 <213> *Sphingomonas paucimobilis*

 <400> 223
 ccggagtgga cgaacctctg gtgtaccggt tgtcacgcca gtggcattgc cggg 54

 <210> 224
 <211> 54
 <212> DNA
 <213> *Zymomonas mobilis*

 <400> 224
 ccggggtgaa catgcctctg gtggacctgt cgtggcgcca gccgcgcagc aggg 54

 <210> 225
 <211> 54
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Alcaligenes*

<400> 225
 ccagagtgga cgaacctctg gtgtaccggt tgtgacgcca gtcgcatcgc cggg 54

<210> 226
 <211> 53
 <212> DNA
 <213> *Pseudomonas cepacia*

<400> 226
 ccgggacgac gaacctctgg tgtgtcagtt gtactgcca gtgcaccgct gat 53

<210> 227
 <211> 54
 <212> DNA
 <213> *Ralstonia pickettii*

<400> 227
 ccggagtgga cgaacctctg gtgttccggt tgtcacgcca gtggcattgc cggg 54

<210> 228
 <211> 54
 <212> DNA
 <213> *Campylobacter jejuni*

<400> 228
 ccgggttgaa caaacctctg gtgtagctgt tggtctgcca agagcatcgc agcg 54

<210> 229
 <211> 53
 <212> DNA
 <213> *Helicobacter pylori*

<400> 229
 ccgggatgga cgtgtcactg gtgcaccagt tgtctgcca gagcatcgc ggg 53

<210> 230
 <211> 53
 <212> DNA
 <213> *Actinoplanes utahensis*

<400> 230
 ccgggacgga cgaacctctg gtgtgccagt tggtctgcca agagcacggc tgg 53

<210> 231
 <211> 54
 <212> DNA
 <213> *Bacillus halodurans*

<400> 231
 ccgggatgga cacaccgctg gtgtaccagt tggtccgcca ggagcatcgc tggg 54

<210> 232
 <211> 54
 <212> DNA

<213> *Bacillus subtilis*

<400> 232

ccgggatgga cgcaccgctg gtgtaccagt tgttctgcca agggcatcgc tggg 54

<210> 233

<211> 54

<212> DNA

<213> *Clostridium tyrobutyricum*

<400> 233

ccgggatgga ctgacctctg gtgtaccagt tgttccgcca ggagcatggc tggg 54

<210> 234

<211> 54

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived
from species of the genus *Frankia*

<400> 234

ccgggacgga cgaacctctg gtgtgccagt tgttctgcca agggcatggc tggg 54

<210> 235

<211> 54

<212> DNA

<213> *Microbispora bispora*

<400> 235

ccggaacgga cgaacctctg gtgtgccagt tgtgccgcca ggtgcacggc tggg 54

<210> 236

<211> 54

<212> DNA

<213> *Mycobacterium leprae*

<400> 236

ccgggacgga cgaacctctg gtataccagt tgtctcacca ggggcaccgc tgga 54

<210> 237

<211> 54

<212> DNA

<213> *Mycobacterium smegmatis*

<400> 237

ccgggacgga cgaacctctg gtataccagt tgtcccacca ggggcacggc tgga 54

<210> 238

<211> 54

<212> DNA

<213> *Mycobacterium tuberculosis*

<400> 238

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ccgggacgga cgaacctctg gtgcaccagt tgtcccgcca ggggcaccgc tgga 54

<210> 239
 <211> 54
 <212> DNA
 <213> *Mycobacterium gallisepticum*

<400> 239
 ccggagtga gacacctctt gtgtccagt tgtagcgcca actgcaccgc tggg 54

<210> 240
 <211> 58
 <212> DNA
 <213> *Propionibacterium freudenreichii*

<400> 240
 ccgggacgga ccaacctctg gtgtgccagt tgttccacca ggagcatggc tggttggc 58

<210> 241
 <211> 54
 <212> DNA
 <213> *Rhodococcus erythropolis*

<400> 241
 ccgggacgga cgaacctctg gtgtgccagt tgttccgcca ggagcaccgc tggg 54

<210> 242
 <211> 57
 <212> DNA
 <213> *Rhodococcus fascians*

<400> 242
 ccgggacgac gaacctctgg tgtgccagt gttccaccag gagcaccgct ggttggc 57

<210> 243
 <211> 58
 <212> DNA
 <213> *Staphylococcus aureus*

<400> 243
 ccgggatgga cataacctctg gtgtaccagt tgtcgtgcca acggcatagc tgggtagc 58

<210> 244
 <211> 54
 <212> DNA
 <213> *Streptococcus faecalis*

<220>
 <221> misc_feature
 <222> (14)..(14)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 244
 ccgggatgga cttncgctg gtgtaccagt tgttctgcca agggcattgc tggg 54

<210> 245
 <211> 54
 <212> DNA
 <213> *Streptomyces ambifaciens*

 <220>
 <221> misc_feature
 <222> (14)..(14)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

 <400> 245
 ccgggatgga cttncgctg gtgtaccagt tgttctgcc aaggcattgc tggg 54

 <210> 246
 <211> 54
 <212> DNA
 <213> *Flavobacterium resinovorum*

 <400> 246
 ccggagtgga cgtaccgctg gtgtacctgt tgtctgcc aaggcatcgc aggg 54

 <210> 247
 <211> 54
 <212> DNA
 <213> *Sphingobacterium multivorans*

 <220>
 <221> misc_feature
 <222> (34)..(34)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

 <400> 247
 ccgggtgga cagacctctg gtgaacctgt catnccgcca ggtgtacggc aggg 54

 <210> 248
 <211> 54
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived from species of the genus *Synechococcus*

 <400> 248
 ccggaggaac gcaccgctgg tgtaccagtt atcgtgccaa cggtaaacgc tggg 54

 <210> 249
 <211> 55
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived

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from species of the genus *Synechocystis*

<400> 249
ccgggaagta cgcacctctg gtgtacctgt tatcgtgcc aacggtaaagc caggg 55

<210> 250
<211> 59
<212> DNA
<213> *Borrelia burgdorferi*

<400> 250
ccgagatgga cgaacctcta gtgtaccagt tatcctgcc aaggtaagtg ctgggtagc 59

<210> 251
<211> 58
<212> DNA
<213> *Chlamydia trachomatis*

<400> 251
ccggaatgga cgaaccaatg gtgtgtcggg tgttttgcca agggcatagc cgagtagc 58

<210> 252
<211> 42
<212> DNA
<213> *Pseudomonas stutzeri*

<400> 252
gagataaccg ctgaaagcat ctaagcggga aacttgctc aa 42

<210> 253
<211> 41
<212> DNA
<213> *Thiobacillus ferrooxidans*

<400> 253
gggataaccg ctgaaagcat ctaagcggga gccatcctaa g 41

<210> 254
<211> 41
<212> DNA
<213> *Agrobacterium vitis*

<400> 254
tggaataaccg ctgaaggcat ctaagcggga aaccaacctg a 41

<210> 255
<211> 41
<212> DNA
<213> *Adalia bipunctata*

<400> 255
gggataaccg ctgaatgcat ctaagcagga aactcacctc a 41

<210> 256

216180.ST25

<211> 41
 <212> DNA
 <213> *Amycolatopsis orientalis*

<400> 256
 aggataaccg ctgaaagcat ctaagcggga agcctgcttc g 41

<210> 257
 <211> 42
 <212> DNA
 <213> *Brucella ovis*

<220>
 <221> misc_feature
 <222> (21)..(21)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 257
 gggataaccg ctgaaggcat ntaagcggga aaccacactg aa 42

<210> 258
 <211> 41
 <212> DNA
 <213> *Bradyrhizobium japonicum*

<400> 258
 gggataaccg ctgaaagcat ctaagcggga aaccacactc a 41

<210> 259
 <211> 41
 <212> DNA
 <213> *Pseudomonas paucimobilis*

<400> 259
 gggataagtg ctgaaagcat ctaagcatga agcccccttc a 41

<210> 260
 <211> 41
 <212> DNA
 <213> *Rhodobacter sphaeroides*

<400> 260
 aggataaccg ctgaaggcat ctaagcggga agcccccttc a 41

<210> 261
 <211> 40
 <212> DNA
 <213> *Rickettsia prowazekii*

<400> 261
 gggataactg ctgaatgcat ctaagcagga aaccacactc 40

<210> 262
 <211> 41

<212> DNA

<213> *Sphingomonas paucimobilis*

<400> 262

gagataaccg ctgaaagcat ctaagcggga aacttgcctt g 41

<210> 263

<211> 41

<212> DNA

<213> *Zymomonas mobilis*

<400> 263

gggataaccg ctgaaagcat ctaagcggga agcctccctc a 41

<210> 264

<211> 41

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived
from species of the genus *Alcaligenes*

<400> 264

gggataaccg ctgaaagcat ctaagcggga agcctacctc a 41

<210> 265

<211> 41

<212> DNA

<213> *Pseudomonas cepacia*

<400> 265

gggataaccg ctgaaagcat ctaagcggga agctcgcttc a 41

<210> 266

<211> 41

<212> DNA

<213> *Ralstonia pickettii*

<400> 266

gagataaccg ctgaaagcat ctaagcggaa aacttgcctc a 41

<210> 267

<211> 41

<212> DNA

<213> *Campylobacter jejuni*

<400> 267

aggataaacg ctgaaagcat ctaagcgtga agccaactct a 41

<210> 268

<211> 42

<212> DNA

<213> *Helicobacter pylori*

216180.ST25

<400> 268
tgtgataact gctgaaagca tctaagcagg aaccaactcc aa 42

<210> 269
<211> 41
<212> DNA
<213> *Actinoplanes utahensis*

<400> 269
gggataaccg ctgaaagcat ctaagcggga agctcgcttc g 41

<210> 270
<211> 41
<212> DNA
<213> *Bacillus halodurans*

<400> 270
gggataagtg ctgaaagcat ctaagcatga agcccccttc a 41

<210> 271
<211> 40
<212> DNA
<213> *Clostridium tyrobutyricum*

<400> 271
gggataaacg ctgaaagcat ctaagcgtga agcccacctc 40

<210> 272
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus *Frankia*

<400> 272
gggataaccg ctgaaagcat ctaagcggga agcctgcttc g 41

<210> 273
<211> 41
<212> DNA
<213> *Microbispora bispora*

<400> 273
gggataaccg ctgaaagcat ctaagcggga agcccgcccc g 41

<210> 274
<211> 41
<212> DNA
<213> *Mycobacterium leprae*

<400> 274
aagataaccg ctgaaagcat ctaagcggga aaccttctcc a 41

<210> 275
 <211> 41
 <212> DNA
 <213> *Mycobacterium smegmatis*

 <400> 275
 aggataaccg ctgaaagcat ctaagcggga aacctcttcc a 41

 <210> 276
 <211> 41
 <212> DNA
 <213> *Mycobacterium tuberculosis*

 <400> 276
 aggataaccg ctgaaagcat ctaagcggga aaccttctcc a 41

 <210> 277
 <211> 41
 <212> DNA
 <213> *Mycobacterium gallisepticum*

 <400> 277
 cggataaacg ctgaaagcat ctaagtgtga aaccgacttt a 41

 <210> 278
 <211> 43
 <212> DNA
 <213> *Propionibacterium freudenreichii*

 <400> 278
 agtgataacc gctgaaagca tctaagtggg aagcacgctt caa 43

 <210> 279
 <211> 41
 <212> DNA
 <213> *Rhodococcus erythropolis*

 <400> 279
 gggataaccg ctgaaagcat ctaagcggga agcctgttcc a 41

 <210> 280
 <211> 41
 <212> DNA
 <213> *Staphylococcus aureus*

 <400> 280
 gggataagtg ctgaaagcat ctaagcatga agccccctc a 41

 <210> 281
 <211> 41
 <212> DNA
 <213> *Streptococcus faecalis*

 <220>

<221> misc_feature
 <222> (36)..(36)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 281
 gggataaacg ctgaaagcat ctaagtgtga agccncctc a 41

<210> 282
 <211> 41
 <212> DNA
 <213> Streptomyces ambifaciens

<400> 282
 gggataaccg ctgaaagcat ctaagcggga agcctgcttc g 41

<210> 283
 <211> 41
 <212> DNA
 <213> Flavobacterium resinovorum

<400> 283
 gagataaccg ctgaaagcat ctaagcggga aactcgcttg a 41

<210> 284
 <211> 41
 <212> DNA
 <213> Sphingobacterium multivorans

<400> 284
 tagataagcg ctgaaagcat ctaagtgcga aactagccac g 41

<210> 285
 <211> 43
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived from species of the genus Synechococcus

<400> 285
 gtggataacc gctgaaagca tctaagtggg aagccacacct caa 43

<210> 286
 <211> 43
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived from species of the genus Synechocystis

<400> 286
 gtggataacc gctgaaagca tctaagtggg aagccacacct caa 43

<210> 287
 <211> 41
 <212> DNA
 <213> *Borrelia burgdorferi*

<400> 287
 aggataaccg ctgaaagcat ctaagtggga agccttcctc a

41

<210> 288
 <211> 41
 <212> DNA
 <213> *Chlamydia trachomatis*

<400> 288
 aggataagca ttgaaagcat ctaaagcca agcctccctc a

41

<210> 289
 <211> 24
 <212> DNA
 <213> *Pseudomonas stutzeri*

<400> 289
 agatgagatc tcaactggagc cttg

24

<210> 290
 <211> 19
 <212> DNA
 <213> *Thiobacillus ferrooxidans*

<400> 290
 atgagatctc ccgggcata

19

<210> 291
 <211> 18
 <212> DNA
 <213> *Agrobacterium vitis*

<400> 291
 aaacgagtat tccctatc

18

<210> 292
 <211> 18
 <212> DNA
 <213> *Adalia bipunctata*

<400> 292
 aaactagact tccccatc

18

<210> 293
 <211> 23
 <212> DNA
 <213> *Amycolatopsis orientalis*

<400> 293

agatgagggc tcccacctcc ttg 23

<210> 294
 <211> 18
 <212> DNA
 <213> *Brucella ovis*

<400> 294
 aaacgagtat tccctatc 18

<210> 295
 <211> 17
 <212> DNA
 <213> *Bradyrhizobium japonicum*

<400> 295
 aaacgagcat tcccttg 17

<210> 296
 <211> 22
 <212> DNA
 <213> *Pseudomonas paucimobilis*

<400> 296
 agatgagatt tccattccg ca 22

<210> 297
 <211> 22
 <212> DNA
 <213> *Rhodobacter sphaeroides*

<400> 297
 agatgagatt tccattccg ca 22

<210> 298
 <211> 18
 <212> DNA
 <213> *Rickettsia prowazekii*

<400> 298
 aaactagact tcccatt 18

<210> 299
 <211> 23
 <212> DNA
 <213> *Sphingomonas paucimobilis*

<400> 299
 agatgagatt tcccgagcc ttg 23

<210> 300
 <211> 14
 <212> DNA
 <213> *Zymomonas mobilis*

<400> 300 agataagata tctc	14
<210> 301 <211> 24 <212> DNA <213> Artificial sequence	
<220> <223> Description of the artificial sequence: derived from species of the genus <i>Alcaligenes</i>	
<400> 301 agataagatt tccctaggac ttta	24
<210> 302 <211> 23 <212> DNA <213> <i>Pseudomonas cepacia</i>	
<400> 302 agatgagatt tccatacacc ttg	23
<210> 303 <211> 24 <212> DNA <213> <i>Ralstonia pickettii</i>	
<400> 303 agatgagatc tcactggaac cttg	24
<210> 304 <211> 24 <212> DNA <213> <i>Campylobacter jejuni</i>	
<400> 304 agatgaatct tctctaagct ctct	24
<210> 305 <211> 13 <212> DNA <213> <i>Helicobacter pylori</i>	
<400> 305 gataaacttt ccc	13
<210> 306 <211> 23 <212> DNA <213> <i>Actinoplanes utahensis</i>	
<400> 306 agatgaggta tcccaccacc ttg	23

<210> 307
 <211> 22
 <212> DNA
 <213> *Bacillus halodurans*

 <400> 307
 agatgagatt tcccatggag ta 22

 <210> 308
 <211> 22
 <212> DNA
 <213> *Clostridium tyrobutyricum*

 <400> 308
 agattagatt tcccacagcg ta 22

 <210> 309
 <211> 23
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Frankia*

 <400> 309
 agatgaggtc tcccacaggg tag 23

 <210> 310
 <211> 23
 <212> DNA
 <213> *Microbispora bispora*

 <400> 310
 agatgaggtc tccctccggg tta 23

 <210> 311
 <211> 22
 <212> DNA
 <213> *Mycobacterium leprae*

 <400> 311
 agatcagggtt tcttaccac tt 22

 <210> 312
 <211> 22
 <212> DNA
 <213> *Mycobacterium smegmatis*

 <400> 312
 agaccaggct tctcaccctc ta 22

 <210> 313

<211> 22
 <212> DNA
 <213> *Mycobacterium tuberculosis*

 <400> 313
 agatcagggtt tctcaccac tt 22

 <210> 314
 <211> 30
 <212> DNA
 <213> *Mycobacterium gallisepticum*

 <400> 314
 agaataatct tcccttccag caatggagta 30

 <210> 315
 <211> 21
 <212> DNA
 <213> *Propionibacterium freudenreichii*

 <400> 315
 gatgagggtt cctgcacagt t 21

 <210> 316
 <211> 22
 <212> DNA
 <213> *Rhodococcus erythropolis*

 <400> 316
 agatgagggtt tctcaccacc tc 22

 <210> 317
 <211> 20
 <212> DNA
 <213> *Staphylococcus aureus*

 <400> 317
 agatgagatt tcccaacttc 20

 <210> 318
 <211> 22
 <212> DNA
 <213> *Streptococcus faecalis*

 <400> 318
 agatgagatt tcccatttct tt 22

 <210> 319
 <211> 23
 <212> DNA
 <213> *Streptomyces ambifaciens*

 <400> 319
 agatgaggac tcccaccccc ttg 23

<210> 320
 <211> 24
 <212> DNA
 <213> *Flavobacterium resinovorum*

<400> 320 24
 agatgaggat tccctggcgg cttg

<210> 321
 <211> 17
 <212> DNA
 <213> *Sphingobacterium multivorans*

<400> 321 17
 agatgagact tccttat

<210> 322
 <211> 20
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechococcus*

<400> 322 20
 gatgagtact ctcatggcat

<210> 323
 <211> 21
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechocystis*

<400> 323 21
 gatgagtact ctcatggtgt t

<210> 324
 <211> 16
 <212> DNA
 <213> *Borrelia burgdorferi*

<400> 324 16
 agatgagata tccttt

<210> 325
 <211> 14
 <212> DNA
 <213> *Chlamydia trachomatis*

<400> 325 14
 agataaggta tccc

<210> 326
 <211> 32
 <212> DNA
 <213> *Pseudomonas stutzeri*

 <400> 326
 agctccctga agggccgtcg aagactacga cg 32

 <210> 327
 <211> 32
 <212> DNA
 <213> *Thiobacillus ferrooxidans*

 <400> 327
 agccccctga agggacgtgg aagactacca cg 32

 <210> 328
 <211> 22
 <212> DNA
 <213> *Agrobacterium vitis*

 <400> 328
 agagccgtgg aagaccacca cg 22

 <210> 329
 <211> 22
 <212> DNA
 <213> *Adalia bipunctata*

 <400> 329
 agagccgtgg aagaccacca cg 22

 <210> 330
 <211> 30
 <212> DNA
 <213> *Amycolatopsis orientalis*

 <400> 330
 aggggttaag gctcccagta gacgactggg 30

 <210> 331
 <211> 22
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genera *Brucella*, *Bradyrhizobium*

 <400> 331
 agagccgtgg aagaccacca cg 22

 <210> 332

<211> 30
 <212> DNA
 <213> *Pseudomonas paucimobilis*

 <400> 332
 aggaagtaag atccctgaaa gatgatcagg 30

 <210> 333
 <211> 22
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genera *Rhodobacter*, *Rickettsia*

 <400> 333
 agggccgtgg aagaccacca cg 22

 <210> 334
 <211> 26
 <212> DNA
 <213> *Sphingomonas paucimobilis*

 <400> 334
 agctccttga agggtcgttc gagacc 26

 <210> 335
 <211> 22
 <212> DNA
 <213> *Zymomonas mobilis*

 <400> 335
 agagccgtcg aagactacga cg 22

 <210> 336
 <211> 26
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Alcaligenes*

 <400> 336
 tgtcctctaa agagccgttc gagact 26

 <210> 337
 <211> 25
 <212> DNA
 <213> *Pseudomonas cepacia*

 <400> 337
 tgtgtgagag gccccagcc agacc 25

<210> 338
 <211> 26
 <212> DNA
 <213> *Ralstonia pickettii*

 <400> 338
 agttccctga agggccgctg aagact 26

 <210> 339
 <211> 14
 <212> DNA
 <213> *Campylobacter jejuni*

 <400> 339
 agaagactac tagt 14

 <210> 340
 <211> 25
 <212> DNA
 <213> *Helicobacter pylori*

 <400> 340
 tgaagctcgc acaaagacta tgtgc 25

 <210> 341
 <211> 28
 <212> DNA
 <213> *Actinoplanes utahensis*

 <400> 341
 agtgggtaag gctcccagct agactact 28

 <210> 342
 <211> 31
 <212> DNA
 <213> *Bacillus halodurans*

 <400> 342
 aatccagtaa gacccttag agatgatgag g 31

 <210> 343
 <211> 30
 <212> DNA
 <213> *Bacillus subtilis*

 <400> 343
 aggaagtaag atccctgaaa gatgatcagg 30

 <210> 344
 <211> 32
 <212> DNA
 <213> *Clostridium tyrobutyricum*

 <400> 344
 agctggtgtaag gccccttgaa gaacacaagg tg 32

<210> 345
 <211> 30
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus Frankia

 <400> 345
 cctggtaagg cccccgacta gatgatcggg 30

 <210> 346
 <211> 30
 <212> DNA
 <213> Microbispora bispora

 <400> 346
 accgggtaag gctcccagta gatgactggg 30

 <210> 347
 <211> 31
 <212> DNA
 <213> Mycobacterium leprae

 <400> 347
 ggtgggataa ggccccccgc agaacacggg a 31

 <210> 348
 <211> 31
 <212> DNA
 <213> Mycobacterium smegmatis

 <400> 348
 ggagggataa ggccccccgc agaccacggg a 31

 <210> 349
 <211> 31
 <212> DNA
 <213> Mycobacterium tuberculosis

 <400> 349
 ggtgggataa ggccccccgc agaacacggg t 31

 <210> 350
 <211> 30
 <212> DNA
 <213> Propionibacterium freudenreichii

 <400> 350
 aatgtggtaa ggcccccggt agaccaccgg 30

 <210> 351

<211> 31
 <212> DNA
 <213> *Rhodococcus erythropolis*

 <400> 351
 gagggggtaa ggcccccggc agaccaccgg g 31

 <210> 352
 <211> 29
 <212> DNA
 <213> *Staphylococcus aureus*

 <400> 352
 gggtataaga tccctcaaag atgatgagg 29

 <210> 353
 <211> 31
 <212> DNA
 <213> *Streptococcus faecalis*

 <220>
 <221> misc_feature
 <222> (20)..(20)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

 <400> 353
 aagaaagtaa gaccctnna agatgatcag g 31

 <210> 354
 <211> 30
 <212> DNA
 <213> *Streptomyces ambifaciens*

 <400> 354
 aggggttaag gctccagta gacgactggg 30

 <210> 355
 <211> 32
 <212> DNA
 <213> *Flavobacterium resinovorum*

 <400> 355
 accgccttga agggtcgttc gagaccagga cg 32

 <210> 356
 <211> 22
 <212> DNA
 <213> *Sphingobacterium multivorans*

 <400> 356
 agggtcgtag aagatgacta cg 22

 <210> 357
 <211> 30

<212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechococcus*

 <400> 357
 aagccagtaa ggtcacgggt agaacacccg 30

 <210> 358
 <211> 30
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechocystis*

 <400> 358
 aagccagtaa ggtcacggga agactacccg 30

 <210> 359
 <211> 23
 <212> DNA
 <213> *Borrelia burgdorferi*

 <400> 359
 aagggtcctg gaagaatacc agg 23

 <210> 360
 <211> 26
 <212> DNA
 <213> *Chlamydia trachomatis*

 <400> 360
 aatgagactc catgtagact acgtgg 26

 <210> 361
 <211> 40
 <212> DNA
 <213> *Pseudomonas stutzeri*

 <400> 361
 agtaatgcat taagctaacc agtactaatt gcccgtagg 40

 <210> 362
 <211> 40
 <212> DNA
 <213> *Thiobacillus ferrooxidans*

 <400> 362
 agcaatgcgt gcagctaagg agtactaatc gcccgtagg 40

 <210> 363

<211> 40
 <212> DNA
 <213> *Agrobacterium vitis*

 <400> 363
 ggtaacctgc gaagcttacc gttactaata gctcgattgg 40

 <210> 364
 <211> 40
 <212> DNA
 <213> *Adalia bipunctata*

 <400> 364
 agtaatgcgt gtagctaacc gatactaata gctcgattga 40

 <210> 365
 <211> 40
 <212> DNA
 <213> *Brucella ovis*

 <400> 365
 ggcaacgcgt gcagcttacc ggtactaata gctcgatcga 40

 <210> 366
 <211> 40
 <212> DNA
 <213> *Bradyrhizobium japonicum*

 <400> 366
 agtaatgcgt gcagcttacc ggtactaatc gttcgattgg 40

 <210> 367
 <211> 40
 <212> DNA
 <213> *Pseudomonas paucimobilis*

 <400> 367
 ggcgacacat ggagctgaca gatactaata gatcgaggac 40

 <210> 368
 <211> 40
 <212> DNA
 <213> *Rhodobacter sphaeroides*

 <400> 368
 agcaatgcgt tcagctgact ggtactaatt gcccgatagg 40

 <210> 369
 <211> 40
 <212> DNA
 <213> *Rickettsia prowazekii*

 <400> 369
 agtaatgtgt gtagctaacc gatactaata gctcgattga 40

<210> 370
 <211> 40
 <212> DNA
 <213> *Sphingomonas paucimobilis*

 <220>
 <221> misc_feature
 <222> (37)..(37)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

 <400> 370
 agtaatgcat taagctaacc agtactaatt gcccgtnccg 40

 <210> 371
 <211> 40
 <212> DNA
 <213> *Zymomonas mobilis*

 <400> 371
 ggtaacacat gtagctaact ggtcctaatt gctctattca 40

 <210> 372
 <211> 40
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived from species of the genus *Alcaligenes*

 <400> 372
 agtgatatgt gaagctgacc aatactaatt gtcggtgagg 40

 <210> 373
 <211> 40
 <212> DNA
 <213> *Ralstonia pickettii*

 <400> 373
 tgtgaggcgt tgagctaacc aatactaatt gcccggtgagg 40

 <210> 374
 <211> 40
 <212> DNA
 <213> *Campylobacter jejuni*

 <400> 374
 tgaaagtcct ttagctgacc agtactaata gagcggtttgg 40

 <210> 375
 <211> 40
 <212> DNA
 <213> *Helicobacter pylori*

<400> 375
 agtaatgcgt ttagctgact actactaata gagcggttgg 40

<210> 376
 <211> 40
 <212> DNA
 <213> *Bacillus halodurans*

<400> 376
 ggcgacacgt gaagctgaca gatactaata ggctcgaggac 40

<210> 377
 <211> 40
 <212> DNA
 <213> *Bacillus subtilis*

<400> 377
 ggcgacacat ggagctgaca gatactaata gatcgaggac 40

<210> 378
 <211> 40
 <212> DNA
 <213> *Clostridium tyrobutyricum*

<400> 378
 ggcaacatgt tcagctgact gatactaata ggccgagggc 40

<210> 379
 <211> 41
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Frankia*

<400> 379
 cggtgacgca tggagctgac cgggtactaat aggccgaggg c 41

<210> 380
 <211> 42
 <212> DNA
 <213> *Microbispora bispora*

<400> 380
 cggtaacgtg tggagccgac cgggtactaat aagccgagag gc 42

<210> 381
 <211> 41
 <212> DNA
 <213> *Mycobacterium leprae*

<400> 381
 cagtaatgag tgtagggaac tggcactaac tggccgaaag c 41

<210> 382
 <211> 41
 <212> DNA
 <213> *Mycobacterium smegmatis*

 <400> 382
 tagtaatagg tgcagggaac tggcactaac cggccgaaaa c 41

 <210> 383
 <211> 41
 <212> DNA
 <213> *Mycobacterium tuberculosis*

 <400> 383
 cagtaatggg tgtagggaac tgggtgctaac cggccgaaaa c 41

 <210> 384
 <211> 86
 <212> DNA
 <213> *Mycobacterium gallisepticum*

 <400> 384
 agaatcgttg tagactacga cgttgatagg ctaaagggtgt aagtgccgcg aggtatttag 60
 ctgattagta ctaataattc gaggac 86

 <210> 385
 <211> 27
 <212> DNA
 <213> *Propionibacterium freudenreichii*

 <400> 385
 gctgaccgat actaagtggc cgagggc 27

 <210> 386
 <211> 41
 <212> DNA
 <213> *Rhodococcus erythropolis*

 <400> 386
 cagtaatgca tgcagggtgac tgggtactaat aggccgagga c 41

 <210> 387
 <211> 41
 <212> DNA
 <213> *Rhodococcus fascians*

 <400> 387
 cagcaatgta tgcagggtgac tgggtactaat aggccgagga c 41

 <210> 388
 <211> 27
 <212> DNA
 <213> *Staphylococcus aureus*

<400> 388
gctgacgaat actaatcgat cgagggc 27

<210> 389
<211> 27
<212> DNA
<213> Streptococcus faecalis

<400> 389
gcggaccaat actaatcggc cgaggac 27

<210> 390
<211> 51
<212> DNA
<213> Streptomyces ambifaciens

<400> 390
ccgcaagggtg tggaggtgac cgggtactaat aggccgaggg cttgtcctca t 51

<210> 391
<211> 51
<212> DNA
<213> Streptomyces galbus

<400> 391
cggtaacgtg tggaggtgac cgggtactaat aggccgaggg cttgtcctca g 51

<210> 392
<211> 51
<212> DNA
<213> Streptomyces griseus

<400> 392
cggtaacggg tggagctgac tgggtactaat aggccgaggg cttgtcctca g 51

<210> 393
<211> 51
<212> DNA
<213> Streptomyces lividans

<400> 393
ccgtgaggtg tggaggtgac cgggtactaat aggccgaggg cttgtcctca g 51

<210> 394
<211> 51
<212> DNA
<213> Streptomyces mashuensis

<400> 394
cggtaacggc tggagctgac tgggtactaat aggccgaggg cttgtccata g 51

<210> 395
<211> 28
<212> DNA

<213> *Flavobacterium resinovorum*

<400> 395
gctaaccagt actaattgcc cgtaaggc 28

<210> 396
<211> 28
<212> DNA
<213> *Sphingobacterium multivorans*

<400> 396
gccaaagtgt actaatagcc cgaagctt 28

<210> 397
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus *Synechococcus*

<400> 397
gctgaggcgt actaatagac cgagggc 27

<210> 398
<211> 27
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus *Synechocystis*

<400> 398
gtcgaggagt actaatagac cgagggc 27

<210> 399
<211> 27
<212> DNA
<213> *Borrelia burgdorferi*

<400> 399
gctgactaat actaattacc cgtatct 27

<210> 400
<211> 28
<212> DNA
<213> *Chlamyia trachomatis*

<400> 400
gctaaccaat actaataagt ccaaagac 28

<210> 401
<211> 36

<212> DNA
 <213> *Salmonella typhi*

<400> 401
 cttaacctta caacgccgaa gatgttttgg cggatg 36

<210> 402
 <211> 35
 <212> DNA
 <213> *Buchnera aphidocola*

<400> 402
 cttaacctta caacaccaga ggtgtttttt ataaa 35

<210> 403
 <211> 35
 <212> DNA
 <213> *Pseudomonas stutzeri*

<400> 403
 cttgaccata taacacccaa acaatttgat gtttg 35

<210> 404
 <211> 35
 <212> DNA
 <213> *Thiobacillus ferrooxidans*

<400> 404
 cttgaccata tatcaccaag cattaaagag cttcc 35

<210> 405
 <211> 35
 <212> DNA
 <213> *Sphingomonas paucimobilis*

<400> 405
 cttgtcccta taaccttggt agtccaaggt cgagt 35

<210> 406
 <211> 35
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Alcaligenes*

<400> 406
 cttgactata caacacccaa gcagttgtat ataaa 35

<210> 407
 <211> 23
 <212> DNA
 <213> *Pseudomonas cepacia*

<400> 407
 aggactaacg actcgtgaag ctg 23

<210> 408
 <211> 29
 <212> DNA
 <213> *Ralstonia pickettii*

<400> 408
 cttgaccata taacacccaa gcaatttga 29

<210> 409
 <211> 35
 <212> DNA
 <213> *Campylobacter jejuni*

<400> 409
 cttatcttta ataaagcatc acttccttgt taagg 35

<210> 410
 <211> 35
 <212> DNA
 <213> *Helicobacter pylori*

<400> 410
 cttgtttttt gctttttgat aagataacgg caata 35

<210> 411
 <211> 33
 <212> DNA
 <213> *Actinoplanes utahensis*

<400> 411
 cggtaacgtg ttgagttgac cggtactaat agg 33

<210> 412
 <211> 35
 <212> DNA
 <213> *Bacillus halodurans*

<400> 412
 ttatccaaaa acaaatcaaa agcaacgtct cgaac 35

<210> 413
 <211> 21
 <212> DNA
 <213> *Bacillus subtilis*

<400> 413
 ttaaccacat tttgaatgat g 21

<210> 414
 <211> 32
 <212> DNA

<213> *Clostridium tyrobutyricum*

<400> 414

ttgaccaaatt ttatcttact gtgcaatttt ca

32

<210> 415

<211> 56

<212> DNA

<213> Artificial sequence

<220>

<223> Description of the artificial sequence: derived
from species of the genus *Frankia*

<400> 415

cggtagcgca tggagctgac cggtagtaaat aggccgaggg cttgtcttcg aaggtg

56

<210> 416

<211> 56

<212> DNA

<213> *Microbispora bispora*

<400> 416

cggtaacgtg tggagccgac cggtagtaaat aagccgagag gcttgacttc acatgc

56

<210> 417

<211> 56

<212> DNA

<213> *Mycobacterium leprae*

<400> 417

cagtaatgag tgtagggaac tggcactaac tggccgaaag cttacaaaac acacac

56

<210> 418

<211> 56

<212> DNA

<213> *Mycobacterium smegmatis*

<400> 418

tagtaatagg tgcagggaac tggcactaac cggccgaaaa cttacaacac cccata

56

<210> 419

<211> 56

<212> DNA

<213> *Mycobacterium tuberculosis*

<400> 419

cagtaatggg tgtagggaac tggtagtaaac cggccgaaaa cttacaacac cctccc

56

<210> 420

<211> 39

<212> DNA

<213> *Mycobacterium gallisepticum*

<400> 420

cgttgatagg ctaaagggtgt aagtgccgcg aggtatttta 39

<210> 421
 <211> 39
 <212> DNA
 <213> *Propionibacterium freudenreichii*

<400> 421
 ttgtcccaca ctttaattct tgtagattgt tgtgaagag 39

<210> 422
 <211> 41
 <212> DNA
 <213> *Rhodococcus erythropolis*

<400> 422
 cagtaatgca tgcaggtgac tggactaat aggccgagga c 41

<210> 423
 <211> 41
 <212> DNA
 <213> *Rhodococcus fascians*

<400> 423
 cagcaatgta tgcaggtgac tggactaat aggccgagga c 41

<210> 424
 <211> 33
 <212> DNA
 <213> *Staphylococcus aureus*

<400> 424
 ttaacaaaa taaatgtttt gcgaagcaaa atc 33

<210> 425
 <211> 42
 <212> DNA
 <213> *Streptococcus faecalis*

<400> 425
 ttaaccaaag aatggataag taaaagcaac ttggttattt tg 42

<210> 426
 <211> 56
 <212> DNA
 <213> *Streptomyces lividans*

<400> 426
 ccgcaagggtg tggaggtgac cggactaat aggccgaggg cttgtcctca tttgct 56

<210> 427
 <211> 56
 <212> DNA
 <213> *Streptomyces mashuensis*

<400> 427
cggtaacggt tggagctgac tgggtactaat aggccgaggg cttgtccata gttgct 56

<210> 428
<211> 43
<212> DNA
<213> Flavobacterium resinovorum

<400> 428
cttgatccta taaccagtgt gttttgcctg gtgggtgatc gcg 43

<210> 429
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus Synechococcus

<400> 429
ttgacctcta acactttgat atcggcac 28

<210> 430
<211> 28
<212> DNA
<213> Artificial sequence

<220>
<223> Description of the artificial sequence: derived
from species of the genus Synechocystis

<400> 430
ttgacctta ttcttcattt ttctttct 28

<210> 431
<211> 34
<212> DNA
<213> Chlamyia trachomatis

<400> 431
cttggtcttt ttatgattgg aagagccgaa aggc 34

<210> 432
<211> 51
<212> DNA
<213> Salmonella typhi

<400> 432
cttaacctta caacaccgaa ggtgttttgg aggataaaaag aaacagaatt t 51

<210> 433
<211> 117
<212> DNA

<213> *Buchnera aphidicola*

<400> 433

cttaacctta caacaccaga ggtgtttttt ataaaaaata aaaaatcttg ttttactgaa 60
tttattgttg tattaatata tatatattat aatagcacta aaaaatgcct ggtaaaa 117

<210> 434

<211> 233

<212> DNA

<213> *Pseudomonas stutzeri*

<400> 434

cttgaccata taacacccaa acaatttgat gtttgcgtgt cagacggttg aagtcgacaa 60
acaaaccgaa agacgcaacg ctgcaaaagc gaaagcgata ccgaagcaac catcacatac 120
ccaattaggg aagcgactca acaccgactc ccagttgaa cttgcttgac gaccatagag 180
cgttggaacc acctgatccc atcccgaact cagtagtgaa acgacgcac gcc 233

<210> 435

<211> 91

<212> DNA

<213> *Thiobacillus ferrooxidans*

<400> 435

cttgaccata tatcaccaag cattaaagag cttcccttca gcaacacctc gagggcggca 60
cagccgcgcc cgggaccaga ccagtttta c 91

<210> 436

<211> 230

<212> DNA

<213> *Agrobacterium vitis*

<400> 436

cttaatcggt ctcatgacc atgctcatcg acttcgtcga tgagccatct gtttagcgct 60
cacgcatgag cggctcgat acgagcctat gtcgcgcgag ggcgccgaac gatcggcgac 120
gcgccttgcg cttgcggaact tcgtccgaaa gtgccaagca aaacgtcgcg gaatgacgtg 180
ttcacacaat aagaaaacgg gcaatgcccg ccagcttctc atcaacattg 230

<210> 437

<211> 162

<212> DNA

<213> *Adalia bipunctata*

<400> 437

tttactttgc tgtgagatta cacatgcata tgggtgtta tctataaaca tgtaagtatc 60
aactcacaaa gttatcaggt taaattagct ttatcaacca ataaagatgt tgttacatgt 120
ctctttctat gttgttcctg tgaaagtaag aatctagaaa aa 162

<210> 438

<211> 120

<212> DNA

<213> *Amycolatopsis orientalis*

<400> 438

tggtaacggg tggagttgac tggactaat aggccgaggg cttgtcctca gttgctcgcg 60
tccactgtgt tagttctgaa gtaacgaaca tcgccttgtc ggctggagtt caacttcata 120

<210> 439
 <211> 189
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Brucella*

<400> 439
 cttgatcact cccatTTtaca atatccatca agcaaaagct tgatgttgaa ggcaatatgg 60
 aagtagggca ataaggcaat atgtttgccc aaagccctca accatcgcca cgcagaaaaa 120
 caaagcacia aggcaaagaa caggcgcagc ccaaacatac tgccctattc ccctaattgcc 180
 ttaagcccc 189

<210> 440
 <211> 109
 <212> DNA
 <213> *Bradyrhizobium japonicum*

<400> 440
 cttgattgct ctcatTTttca gtgtccatag ggccgcaagg cccgcgacca gaatgaaatg 60
 agaggcgcta gtcgcccac aaagatcgct tgcttcgtat tccttgtec 109

<210> 441
 <211> 125
 <212> DNA
 <213> *Pseudomonas paucimobilis*

<400> 441
 ctttaaccaat ttgaatgtat gcttactgtt atctagtttt gagagaacac tctcaatggc 60
 ttggtggcga tagcgaagag gtcacacccg ttcccatgcc gaacacggaa gttaagctct 120
 tcagc 125

<210> 442
 <211> 100
 <212> DNA
 <213> *Rhodobacter sphaeroides*

<400> 442
 cttgatctga cccggtaaca gcaaggctca aaagccaacg ctctacccca gatcagaagc 60
 aatagaccgc gaacaagcaa aagcctgatg ttgtcgtttc 100

<210> 443
 <211> 196
 <212> DNA
 <213> *Rickettsia prowazekii*

<400> 443
 ttacttttgc tgtgagatta tatatgcata tagtgTTaat tatataagta ttttaagcatc 60
 aatttgtaaa ttataatttt aatgttaaat tagctttatc aataaataaa aatgttattc 120
 tatcgTTTTa tgttacgatt tgatagtaaa gttttgatct ttctttaaga tattgtagac 180
 aattgtatat tatacc 196

<210> 444

<211> 249
 <212> DNA
 <213> *Pseudomonas cepacia*

<400> 444
 aggactaacg actcgtgaag ctgaccggta ctaataggcc gataacttac accacacacc 60
 ctttttcgtga acggattcaa aagacgttca caccaggaga gggtaaaaag aaaaaacaag 120
 actgcttgcg tccactatgt ggttcccaac caacaaaccc gccacgggca cgttgcgaca 180
 ggaacacaac tgaataacaa caccacaatg ttgtaaccac aaagacttcc ccccccggc 240
 atcagacc 249

<210> 445
 <211> 209
 <212> DNA
 <213> *Ralstonia pickettii*

<220>
 <221> misc_feature
 <222> (202)..(202)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 445
 cttgaccata taacacccaa gcaatttgag cgtaggcgcc aaattgtggt ggtgaagatg 60
 atacgaaccg aaagttagca acgaaccaca acatcacata tccgaattcg ctgggctgtc 120
 catctggaca ttctggctac agaatttctt gacgaccata gagcattgga accacctgat 180
 cccatcccga actcagcagt gnaacgatg 209

<210> 446
 <211> 271
 <212> DNA
 <213> *Campylobacter jejuni*

<400> 446
 cttatcttta ataaagcatc acttccttgt taagggtttt aagaagactt tgaatataga 60
 taatatattag agtttaatat aaatctttca agtaaagttt gtattagaac ttgctcttaa 120
 cattgttttt taagtattct atataaaaac ttatcaaaga taaaagataa gaaaagaaga 180
 aagagaataa aagattaagt tttattctta aattcaattt ttcaaagaat atttaaataa 240
 caatgtccgt gattatacag atgtggaaac g 271

<210> 447
 <211> 228
 <212> DNA
 <213> *Helicobacter pylori*

<400> 447
 cttgtttttt gctttttgat aagataacgg caataagcgc gaatgggtta ccactgcctt 60
 actgagtgtg agagagtttg agttttatga agacttttat aagattaaac tttaatgagg 120
 aatgagatac catctcaatg gtttaaagtt aaaggctatt aacgatcttc tttgttaaaa 180
 acagctcccc tataaagaga aaggggagtt aagggtaaat gcgttttt 228

<210> 448
 <211> 155
 <212> DNA
 <213> *Actinoplanes utahensis*

<400> 448

216180.ST25

```

cggtaacgtg ttgagttgac cggtactaat aggccgaggg cttaaccacc ctaaattttc 60
tgcttgcgtc cactgtgtga ttcacagcaa acgaacaacc accccgggtc aagagtgcgg 120
ggttgctggt ttgttctgct gatggctggt tcgat 155

```

<210> 449
 <211> 296
 <212> DNA
 <213> *Bacillus halodurans*

```

<400> 449
cttatccaaa aacaaatcaa aagcaacgtc tcgaactcga gaagcgcccc attatctagt 60
tttgagagaa tcttgttctc caaagaagcg ctccgacgca gcatcgcaag atgcgaagtt 120
gatcggaagc cgtgatcaag agattattct cttaggtcca aagaaaaggg tttcgagaaa 180
cgagcagttt taggaatcga gcgacgacag atcggagcgt acacacggta cgtgaggatc 240
tggaggagtg aagatgacac caaaatgcga tgttgatcgg aggccgtaac tatcta 296

```

<210> 450
 <211> 122
 <212> DNA
 <213> *Bacillus halodurans*

```

<400> 450
cttaaccaca ttttgaatga tgtcacacct gttatctagt tttgagagaa cacctctcta 60
aaggcggaag gtaaggaaac tccgctaagg gctctcacat cctgtgagaa acgcccagta 120
cc 122

```

<210> 451
 <211> 209
 <212> DNA
 <213> *Clostridium tyrobutyricum*

```

<400> 451
cttgaccaaa tttatcttac tgtgcaattt tcagagaata attattctct tatctccatt 60
agaaatataa tgtttctatt ttattataga gaataaagta agtaaattga taataaccat 120
tagtacaagg aagatatgag cgaagagcgg aatttactta ggtaaattgag cactggagtg 180
aataattctg acggtgtaat gagaagtta 209

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<210> 452
 <211> 100
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Frankia*

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<400> 452
cggtgacgca tggagctgac cggtactaat aggccgaggg cttgtcttcg aaggtgctac 60
gcgtccactg tgcggttctc ggggtgtacg cgggttcggc 100

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<210> 453
 <211> 85
 <212> DNA
 <213> *Microbispora bispora*

<400> 453

216180.ST25

cggtaacgtg tggagccgac cggtactaat aagccgagag gcttgacttc acatgcacgc 60
 acccactatg cgattctcga tcagc 85

<210> 454
 <211> 124
 <212> DNA
 <213> *Mycobacterium leprae*

<400> 454
 cagtaatgag tgtagggaac tggcactaac tggccgaaag cttacaaaac acacacatcg 60
 caaccacata attcagatcc actttgtcgt ggagcatcac acccccatc agaacaaatt 120
 tttta 124

<210> 455
 <211> 146
 <212> DNA
 <213> *Mycobacterium smegmatis*

<400> 455
 tagtaatagg tgcagggaac tggcactaac cggccgaaaa cttacaacac cccataatcg 60
 ttgtaagaag aaaacattga cgcaccgcgc tcgcaaccac actccacgga tgatcaaacc 120
 cacaagtttg ctctccatgt ggggtca 146

<210> 456
 <211> 135
 <212> DNA
 <213> *Mycobacterium tuberculosis*

<400> 456
 cagtaatggg tgtagggaac tgggtgctaac cggccgaaaa cttacaacac cctccctttt 60
 ggaaaaggga ggcaaaaaca aactcgcaac cacatccggt caccggcgcta gccgtgcgtc 120
 cacacccccc accag 135

<210> 457
 <211> 169
 <212> DNA
 <213> *Mycobacterium gallisepticum*

<400> 457
 cggttgatagg ctaaagggtg aagtgccgcg aggtatttag ctgattagta ctaataattc 60
 gaggacttag atttgatcaa aaacattagc tgttttttat ctaatatgat ttgttgtatt 120
 ttgtttttca aagagcaatg tgtgtgatat cgatatcgtg atggaaaca 169

<210> 458
 <211> 43
 <212> DNA
 <213> *Propionibacterium freudenreichii*

<400> 458
 cttgtcccac actttaattc ttgtagattg ttgtgaagag ttt 43

<210> 459
 <211> 182
 <212> DNA
 <213> *Rhodococcus erythropolis*

<400> 459
 cagtaatgca tgcaggtgac tgggtactaat aggccgagga cttaccacaa agaagctacg 60
 cgtccactgt gcggtatctg aaacaacaca cagatactga tgagaaaccc tgttttctcc 120
 atcccccaac accagaaact ggtgttgacg tgggtgaaacc aggtgatcag aagaagggtta 180
 ct 182

<210> 460
 <211> 168
 <212> DNA
 <213> *Rhodococcus fascians*

<400> 460
 cagcaatgta tgcaggtgac tgggtactaat aggccgagga cttaccacaa agaagctacg 60
 cgtccactgt gcaatatctg aaacaacaca cgagtagttg ttcgacaaca gaaccgaata 120
 cacgaatccg ccaccacac gagtgtgggt gacaggttcg ctcgttga 168

<210> 461
 <211> 64
 <212> DNA
 <213> *Staphylococcus aureus*

<400> 461
 cttaaccaa ataaatgttt tgcgaagcaa aatcactttt acttactatc tagttttgaa 60
 tgta 64

<210> 462
 <211> 87
 <212> DNA
 <213> *Streptococcus faecalis*

<220>
 <221> misc_feature
 <222> (82)..(82)
 <223> n = Adenosine (A) or Guanosine (G) or Cytosine (C) or Thymidine (T) or Inosine (I)

<400> 462
 cttaaccaa gaatggataa gtaaaagcaa cttggttatt ttgattcaaa cttcaatcca 60
 gttttgagtg aatnaagatt cncctcaa 87

<210> 463
 <211> 123
 <212> DNA
 <213> *Streptomyces ambifaciens*

<400> 463
 ccgcaagggtg tggaggtgac cggtactaat aggccgaggg cttgtcctca tttgctcgcg 60
 tccactgtgt tggttctgaa accacgaaca accccatgtg ccacacatgg tgcggttgc 120
 agt 123

<210> 464
 <211> 134
 <212> DNA
 <213> *Streptomyces galbus*

<400> 464

```

cggtaacgtg tggaggtgac cggactaat aggccgaggg cttgtcctca gttgctcgcg 60
tccactgtgt tggttctgaa accacgaaca gcccctgct ctggcatggt gcggcattgt 120
tcgacagttt cata 134

```

<210> 465

<211> 143

<212> DNA

<213> *Streptomyces griseus*

<400> 465

```

cggtaacggg tggagctgac tggactaat aggccgaggg cttgtcctca gttgctcgcg 60
tccactgtgt tggttccggg ttgcgaacag ttatcgacc ggttgaacag tttcactact 120
taattgaaga gtgtgcttgt tcg 134

```

<210> 466

<211> 137

<212> DNA

<213> *Streptomyces lividans*

<400> 466

```

ccgtgaggtg tggaggtgac cggactaat aggccgaggg cttgtcctca gttgctcgcg 60
tccactgtgt tagttctgag gcaacgaccg ttgccggatt tgagtagaac gcacaattaa 120
agagtgtgct tgttcgc 137

```

<210> 467

<211> 135

<212> DNA

<213> *Streptomyces mashuensis*

<400> 467

```

cggtaacggg tggagctgac tggactaat aggccgaggg cttgtccata gttgctcgcg 60
ttcactgtgt tggttctgaa acaacaacca agaagcatal gccgtgtgtg gttgacagtt 120
tcatagtgtt tcggt 135

```

<210> 468

<211> 114

<212> DNA

<213> *Flavobacterium resinovorum*

<400> 468

```

cttgatccta taaccagtgt gttttgcctg gtgggtgatc gcgactgtgc cgaaacagtt 60
gacacgcaca accccaacta catccctatt cgcagcgttg acctcaacct cagc 114

```

<210> 469

<211> 126

<212> DNA

<213> *Sphingobacterium multivorans*

<400> 469

```

ctttctcaag cagataaac tggtgtcttc ctctttaatt tttagaaacg aaaagaataa 60
caaaaaagaa acgaagctct ttcaatagat atgtcagttg gcctgacgat gatataattat 120
cataag 126

```

<210> 470

216180.ST25

<211> 63
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechococcus*

<400> 470
 cttgacctct aacactttga tatcggcact ctctctatg cagccttcaa ggctctaatac 60
 tcc 63

<210> 471
 <211> 67
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechocystis*

<400> 471
 cttgaccttt attcttcatt tttctttctc ttttcttggt cagtcttctg ggtttcttct 60
 cagcaaa 67

<210> 472
 <211> 17
 <212> DNA
 <213> *Borrelia burgdorferi*

<400> 472
 ctttgccat atttttg 17

<210> 473
 <211> 111
 <212> DNA
 <213> *Chlamydia trachomatis*

<400> 473
 cttggtcttt ttatgattgg aagagccgaa aggcaaagac aataagaaaa agagtagaga 60
 gtgcaagtac gtagaagaca agcttttaag cgtctattag tatacgtgag a 111

<210> 474
 <211> 148
 <212> DNA
 <213> *Azotobacter vinelandii*

<400> 474
 aaacaatctg ttgccagccc cagcggggcg gcacggagag ggccgagccg acaggccgaa 60
 gatttggtg gaccgcacgc tgccggaaac aggctaccgc tatcacctac ccgattggct 120
 gtcgtgtcat cgacacggcg gcaaccga 148

<210> 475
 <211> 229
 <212> DNA
 <213> *Cowduria ruminantium*

<400> 475

```

ggtgtgtaag tatggtaaca tatgtagcta accagtacta atagcccgat tgatttactt 60
aatttgtaat tatatgtagt attaaaaactg cagcttgtct ttttgcttat tttgttttat 120
agtttaattg ggttggtggt aatagcagaa gtgatacacc cagctacatt tcgaacctgg 180
aagttaagcc ttctagcgct tatggtactt tgtcttaagg cacgggaga 229

```

<210> 476

<211> 110

<212> DNA

<213> *Mycobacterium intracellulare*

<400> 476

```

taagcttgat tcacacactc gcaaccacag tccatttcgc gcgttctgcc gctgaagcta 60
gaacaccgca cccccacca aacaaattta aatagagtta cggcgccac 110

```

<210> 477

<211> 107

<212> DNA

<213> *Mycobacterium lufu*

<400> 477

```

aaaacttacc gaacacacaa tcgcaaccac agtccatttc acggcagcaa tgccgcgaaa 60
cgccacaccc cccaccaaac aaattttaat agagttacgg cggccac 107

```

<210> 478

<211> 120

<212> DNA

<213> *Mycobacterium simiae*

<400> 478

```

taagcttgat tcacacacat cgcaaccact atcgtcgcga cttattgtcg cgccgaatgc 60
cacaccccc accagaacaa ctaataaaat agtgttccgt aatagagtta cggcgccac 120

```

<210> 479

<211> 149

<212> DNA

<213> *Mycobacterium smegmatis*

<400> 479

```

caccacataa cggttgtaaga agaaaacatt gaccaccgcg ctgcgaacca cactccacgg 60
atgatcaaac cgatcacccc accacaaaaa caaaccaca agtttgctct ccatgtgggt 120
caccacataa gagaatagag ttacggcgg 149

```

<210> 480

<211> 75

<212> DNA

<213> *Saccharomonospora azurea*

<400> 480

```

caaagatgct acgcacccac tctgcaactc tgaaacacca caccocggaa acatgatcct 60
gggttgtttc acagt 75

```

<210> 481

<211> 73

<212> DNA

<213> *Saccharomonospora caesia*

<400> 481

caaagatgct acgcacccac tctgcaactc tgaaacacca caccgccgaa acgatcctgg 60
gttgtttcac agt 73

<210> 482

<211> 75

<212> DNA

<213> *Saccharomonospora cyanea*

<400> 482

caaacatgct acgcacccac tctgcaactc tgaaacacca ccccggaac acaccggcg 60
tgattgtttc ccaga 75

<210> 483

<211> 69

<212> DNA

<213> *Saccharomonospora glauca*

<400> 483

caaagacgct acgcacccac tctgcaactc tgaaacacca ccctgggtgtg ccagtgggtg 60
tttcacaga 69

<210> 484

<211> 74

<212> DNA

<213> *Saccharomonospora viridis*

<400> 484

caaaggtgct acgcacccac tctgcaactc tgaaacacca cacccccaca acaccgggct 60
ggttgtttca caga 74

<210> 485

<211> 304

<212> DNA

<213> *Wolbachia pipientis*

<400> 485

taactggtac taatagcctg attgatttat ttgctttcta tatgtgcata tgcagtgtta 60
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aaaaacccaa agtaggtcgt tgccaagttt ataaaaattt cttcttattt atatcttttc 240
agtagagcga tgaaacaagg taaacataga gtagctgtga ggtaatataa ctgatctttt 300
agaa 304

<210> 486

<211> 34

<212> DNA

<213> *Salmonella typhi*

<400> 486

ttcctggcgg cactagcgcg gtggtccac ctga 34

<210> 487
 <211> 22
 <212> DNA
 <213> Buchnera aphidicola

 <400> 487
 atagtgtagt ggtaccacct`ga 22

 <210> 488
 <211> 53
 <212> DNA
 <213> Pseudomonas stutzeri

 <400> 488
 catcgccgat ggtagctgtg gggctctccc atgtgagagt aggtcatcgt caa 53

 <210> 489
 <211> 35
 <212> DNA
 <213> Thiobacillus ferrooxidans

 <400> 489
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 <210> 490
 <211> 52
 <212> DNA
 <213> Agrobacterium vitis

 <400> 490
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 <210> 491
 <211> 38
 <212> DNA
 <213> Adalia bipunctata

 <400> 491
 gccatgcaac aatgttaaca gcagactaat acaaattct 38

 <210> 492
 <211> 52
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus Brucella

 <400> 492
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 <210> 493
 <211> 40
 <212> DNA

<213> *Bradyrhizobium japonicum*

<400> 493

ttcgccggcc tggtaggttt agcgaagagc ctcaaccga

40

<210> 494

<211> 36

<212> DNA

<213> *Pseudomonas paucimobilis*

<400> 494

tcttcagcgc cgatggtagt cggggttccc cctaata

36

<210> 495

<211> 40

<212> DNA

<213> *Rhodobacter sphaeroides*

<400> 495

ttctccggtc tggtaggcat agcacgagca aaacaccga

40

<210> 496

<211> 53

<212> DNA

<213> *Rickettsia prowazekii*

<400> 496

ccttgcttaa gaataatata atagcatata cagcatatta taatacaacc tat

53

<210> 497

<211> 51

<212> DNA

<213> *Rickettsia bellii*

<400> 497

aaatttcttt aagtcctgca acaacactaa cagcaaacca atacaaatct a

51

<210> 498

<211> 53

<212> DNA

<213> *Rickettsia rickettsii*

<400> 498

gaattttttt gagtcgtgca acaacattaa cagtagacta taatacaaat cta

53

<210> 499

<211> 47

<212> DNA

<213> *Sphingomonas paucimobilis*

<400> 499

gccagacaag tcaaagcctg atgaccatag caagtcggtc ccacccc

47

<210> 500

<211> 33
 <212> DNA
 <213> *Zymomonas mobilis*

<400> 500
 gcttgggtggc tatagcgtca gtgacccacc cga 33

<210> 501
 <211> 53
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Alcaligenes*

<400> 501
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 <211> 51
 <212> DNA
 <213> *Pseudomonas cepacia*

<400> 502
 cgggcggacg ggtacaaggg ttacggcggc catagcgtgg gggaaacgcc c 51

<210> 503
 <211> 48
 <212> DNA
 <213> *Ralstonia pickettii*

<400> 503
 catcgccgat ggtagtggtg ggtttcccca tgcgagagta ggacatag 48

<210> 504
 <211> 51
 <212> DNA
 <213> *Helicobacter pylori*

<400> 504
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<210> 505
 <211> 52
 <212> DNA
 <213> *Bacillus halodurans*

<400> 505
 caaagaggat caagagattt gcggaagcaa gcgagtgacg aactgagcgt at 52

<210> 506
 <211> 52
 <212> DNA
 <213> *Bacillus halodurans*

<400> 506
 ccttcacct gaaggcattt gtttggtggc gatagcgaag aggtcacacc cg 52

<210> 507
 <211> 52
 <212> DNA
 <213> *Clostridium tyrobutyricum*

<400> 507
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<210> 508
 <211> 51
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Frankia*

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<210> 509
 <211> 50
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 <213> *Microbispora bispora*

<400> 509
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<210> 510
 <211> 45
 <212> DNA
 <213> *Mycobacterium leprae*

<400> 510
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<210> 511
 <211> 52
 <212> DNA
 <213> *Mycobacterium smegmatis*

<400> 511
 accacataag agaatagagt tacggcggtc catagcggca gggaaacgcc cg 52

<210> 512
 <211> 49
 <212> DNA
 <213> *Mycobacterium tuberculosis*

<400> 512
 agaacaaatt tgcataagagt tacggcggcc acagcggcag ggaaacgcc 49

<210> 513
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 <212> DNA
 <213> *Rhodococcus erythropolis*

 <400> 513
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 <210> 514
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 <212> DNA
 <213> *Rhodococcus fascians*

 <400> 514
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 <210> 515
 <211> 53
 <212> DNA
 <213> *Staphylococcus aureus*

 <400> 515
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 <210> 516
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 <212> DNA
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 <400> 516
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 <210> 517
 <211> 47
 <212> DNA
 <213> *Streptomyces ambifaciens*

 <400> 517
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 <210> 518
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 <220>
 <223> Description of the artificial sequence: derived
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 <400> 518
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 <210> 519

<211> 47
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 <213> *Flavobacterium resinovorum*

 <400> 519
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 <210> 520
 <211> 52
 <212> DNA
 <213> *Spingobacterium multivorans*

 <400> 520
 taagacagac caataaagat ttttaggtgc ctatcgcgc ggtgtctacc tc 52

 <210> 521
 <211> 53
 <212> DNA
 <213> Artificial sequence

 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechococcus*

 <400> 521
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 <212> DNA
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 <220>
 <223> Description of the artificial sequence: derived
 from species of the genus *Synechocystis*

 <400> 522
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 <210> 523
 <211> 53
 <212> DNA
 <213> *Borrelia burgdorferi*

 <400> 523
 ttttgtcttc cttgtaaaaa ccctggtggt taaagaaaag aggaaacacc tgt 53

 <210> 524
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 <212> DNA
 <213> *Chlamydia trachomatis*

 <400> 524
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<210> 525
 <211> 138
 <212> DNA
 <213> *Sphingomonas paucimobilis*

<220>
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<400> 525
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 acgcgtaact caagcgta 138

<210> 526
 <211> 107
 <212> DNA
 <213> *Zymomonas mobilis*

<400> 526
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<210> 527
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 <212> DNA
 <213> Artificial sequence

<220>
 <223> Description of the artificial sequence: derived from species of the genus *Alcaligenes*

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 ctgtaaagat ttggaaaacg catcggcaac caataagacc aatgcaa 167

<210> 528
 <211> 225
 <212> DNA
 <213> *Borrelia burgdorferi*

<400> 528
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 acaaaagata tatattattc tatgttgcat aaacaaattg gcaaagtaga gatggaagat 180
 aaaaatatgg tcaaagtaat aagagtctat ggtgaatgcc tagga 225

<210> 529
 <211> 681
 <212> DNA
 <213> *Xanthomonas campestris*

<400> 529
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216180.ST25

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<210> 530

<211> 229

<212> DNA

<213> Cowduria ruminantium

<400> 530

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aagttaagcc ttctagcgct tatggtactt tgtcttaagg cacgggaga 229

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